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Altri autori (Persone)	HammerichOle <1945-> UlstrupJens <1941->
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Electron Tunneling Through Iron and Copper Proteins -- The Respiratory Enzyme as An Electrochemical Energy Transducer -- Reconstituted Redox Proteins On Surfaces For Bioelectronic Applications -- Voltammetry of Adsorbed Redox Enzymes: Mechanisms in The Potential Dimension -- Electrochemistry At The Dna/Electrode Interface -- Charge Transport of Solute Oligonucleotides In Metallic Nanogaps -- Observations and Some Puzzles -- In Situ Stm Studies Of Immobilized Biomolecules At The Electrodeelectrolyte Interface -- Charge Transfer And Interfacial Bioelectrochemistry At The Nanoscale And Single-Molecule Levels.
Sommario/riassunto	Interfacial electrochemistry of redox metalloproteins and DNA-based molecules is presently moving towards new levels of structural and functional resolution. This is the result of powerful interdisciplinary efforts. Underlying fundamentals of biological electron and proton transfer is increasingly well understood although with outstanding unresolved issues. Comprehensive bioelectrochemical studies have mapped the working environments for bioelectrochemical electron transfer, supported by the availability of mutant proteins and other powerful biotechnology. Introduction of surface spectroscopy, the

scanning probe microscopies, and other solid state and surface physics methodology has finally offered exciting new fundamental and technological openings in interfacial bioelectrochemistry of both redox proteins and DNA-based molecules. Inorganic Bioelectrochemistry provides a thorough and didactic overview of state-of-the-art bioelectrochemistry with prospects for forthcoming development. The book is organized in eight chapters written by leading international experts and covers crucial relevant topics such as electron and proton transfer in metalloprotein systems, electrochemistry and electrocatalysis of redox enzymes, and electrochemistry of DNA-based molecules. A wide variety of readers will find this volume of great interest. These include final year undergraduate and postgraduate students, university lecturers in inorganic and physical chemistry as well as the biochemical and biological sciences, and research staff in medical and biotechnological companies, catalysis research, and other industries.

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